

Inventor of Biosphere 2, alum, comes to CSM

Benjamin Johnson
Staff Writer

Eight people lived on three acres in Arizona which featured an ocean with coral reef, a marsh, a rainforest, a savannah, a desert, a farm and a micro-city for two years. This environment, reminiscent of a fairy tale, was contained in an air tight structure made from glass and steel and was aptly named Biosphere 2. The best scientists and engineers, artists, and thinkers from all across the globe aided John Allen in creating what some would deem fiction.

Describing the importance and magnificence of the Allen's project, Ralph Metzner, author of *The Unfolding Self* and *Green Psychology*, said, "The Biosphere 2 project was surely one of the great scientific and technological enterprises of our time. Building a working model of the Earth's biosphere is essential preparation for the coming era of space

travel and manned exploration of other worlds. In this memoir by the multifarious genius inventor/explorer John Allen, we learn how he used his knowledge and experience in engineering, metallurgy, design, ecology, large-scale organizational finance, agriculture (and other fields), to draw together and inspire an extraordinary team of highly skilled and knowledgeable collaborators from a wide range of scientific and technical disciplines."

John Allen graduated from the Colorado School of Mines in 1957 with a degree in metallurgical and mining engineering. Upon graduating, Allen performed some radical experiments, his most famous being the contained ecosystem Biosphere 2. On April 22, 2009 at 6:00 PM, Petroleum Hall will be the arena where Allen conveys the story of his research and discusses the trials and successes of Biosphere 2. After his presentation, Allen will also host a book signing

for *Me and the Biospheres: A Memoir by the Inventor of Biosphere 2*.

Allen's book is an in-depth autobiography of the project that drew worldwide recognition for Allen and his research. Executive Director of the New Mexico Book Association Richard Polese said, "Now the inside story of Biosphere 2 is told by the man who created it. A fascinating and insightful read into the origins of one of America's most ambitious ecological experiments and the journey it took to get there." More praise for the book came from Lisa Law, author of *Interviews with Icons*, who said that "John Allen can daily create with his thoughts, spoken words, and writing pen. His visionary, innovative and

synergistic ideas help humankind understand its capabilities to advance towards a more enlightened

world. This book gives us a deep look into John's life, loves, and achievements. Dig it."



Inside Biosphere 2.

PHOTO COURTESY WIKIMEDIA COMMONS



ANDREW FERGUSON / OREDIGGER

Last week we neglected to credit Andrew Ferguson for all of the lovely E-Days photos in the center-spread. Our apologies.

Mines may face \$300 million in state funding cuts

Ian Littman
Assistant Webmaster

After a lengthy discussion regarding officer elections, Tuesday's Faculty Senate meeting, conducted at 2 PM in Hill Hall 300, turned to a more pressing matter: budgeting.

According to an e-mail sent on Monday by senate member Jörg Drewes, "The campus is faced with a 64% cut in state support down from \$23.2 million to \$8.4 million. To address the \$14 million short-fall for FY10, immediate actions are proposed. These related to revenue increases from tuition and enrollment increases and spending reductions." Suggested cut areas included financial aid, graduate fellowships, and employment, both in wages and number of employees. "It is obvious that we have to get creative to manage this situation and I believe it is worth having a discussion regarding priorities where to cut and

to what degree," Drewes continued in his e-mail.

Soon after this e-mail however, came a press release from Colorado Governor Bill Ritter. "In a letter to the legislature's Joint Budget Committee, Gov. Ritter said new guidelines make it clear that a previous proposal to cut higher education by \$300 million would have dropped the state below the \$555 million level of [fiscal year] 05-06. Going below that level would

the Faculty Senate's meeting, clarified during the Tuesday meeting, regarding the state's current \$300

million budget deficit.

"Clearly, it would be counter-productive to cut higher education by \$300 million only to lose the entire \$760 million in Stabiliza-

On-campus, President Scoggins has organized a town hall meeting in Metals Hall on Wednesday at noon to discuss the budget issues potentially faced by Mines.

tion Funds," Ritter noted in the press release.

On-campus, President Scoggins has organized a town hall meeting in Metals Hall on Wednesday at noon to discuss the budget issues potentially faced by Mines. Students and faculty are highly encouraged to attend. Additionally, the Mines Board of Trustees will meet on Friday at 9 AM in their third-floor Guggenheim conference room to discuss the budget. The Faculty Senate encourages attendance to this meeting as well. "When more people show up...it sends a message that there are people out there who care," noted a Faculty Senate member. "The decisions are mainly affecting the students and us."

"Clearly, it would be counter-productive to cut higher education by \$300 million only to lose the entire \$760 million in Stabilization Funds."

make Colorado ineligible for all \$760 million in State Stabilization Funds from the Recovery Act," the release explained. As such, the state will have to make funding cuts in other areas to keep its budget balanced. "The state can't go into debt," J. Thomas McKinnon, moderator for

Scientific discoveries this week

Anand Erdenebileg, Staff Writer

Fresno County, CA: Solaren Corp. is planning to provide “microwave” power to California in 2016. The idea is to put satellites up in space that would capture solar energy undiluted by the atmosphere, and then beam it back down to the earth in the form of microwave radiation which would then be received by a station on the ground.

Leicester, England: Scientists from the University of Leicester have developed a way to diagnose and treat prostate cancer using nanotechnology. Magnetic nanoparticles are put into the body of someone suspected to have prostate cancer. Magnetic Resonance Imaging is then used to make an often sensitive diagnosis less intrusive. These magnetic nanoparticles also help to destroy tumor cells in early stages of cancer.

Arlington, VA: The Office of Naval Research will be testing unmanned aerial vehicles (UAVs) charged with hydrogen-powered fuels. Compared to earlier Navy UAVs, these vehicles can store more information, are smaller, less noisy, can carry heavier loads, and can travel farther distances.

Singapore: Scientists at the Singapore's Institute of Bioengineering and Nanotechnology have converted carbon dioxide into methanol. They used N-heterocyclic carbene (NHC) catalysts for carbon dioxide to react. A small amount of NHC is required to make the carbon work. The scientists added hydrosilane to the NHC-activated carbon dioxide and, as a result, water and methanol were created.

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Headlines from around the world

Emily Trudell, Staff Writer

Alaskan Governor **Sarah Palin** announced during a Right to Life fundraiser speech in Indiana that she had contemplated having an abortion “for a fleeting moment” after learning that she was pregnant with her one-year old son Trig, who has Down Syndrome.

The Vatican defended **Pope Benedict XVI**’s opinion that condoms will not solve the AIDS epidemic, and noted that sexual responsibility is the best way to prevent the spread of disease. The defense came after AIDS fighting agencies in Europe called the Pope’s remarks irresponsible.

President Barack Obama met with leaders of other American nations in the Caribbean country of Trinidad, and said that he hopes for “new beginnings” with the country of **Cuba**, which has not been present at the Summit of the Americas for 47 years.

A recent study has shown that children born to mothers who took the **epilepsy drug** Valproate have lower IQ’s than the children of mothers who took other seizure preventing drugs. The drug has already been linked to a high occurrence of spina bifida and other birth defects.

At least 30 people were missing because of a **mudslide** in Peru, and while some were rescued, at least twelve are dead. Rain in the area has not stopped since October, and mudslides are common during the end of the wet season.

A draft of guidelines on **stem cell research** was released by the Obama Administration. The guidelines allow for funding for human embryonic stem cells made for research pur-

poses only, and funding for adult stem cell research and induced pluripotent stem cells will continue.

CIA memos were released outlining interrogation techniques used on suspected terrorists post-**September 11**, 2001. The methods have since been outlawed.

Two **earthquakes** in Afghanistan caused the death of at least 19 people when mud brick homes collapsed on top of residents. The United States Geological Survey announced that first shock was a 5.5 magnitude on the Richter Scale, followed by a second 5.1 magnitude aftershock two hours later.

The Environmental Protection Agency declared that **greenhouse gases** are harmful to human health, and paved the way for new regulation for automobile, factories, and other emission sources.

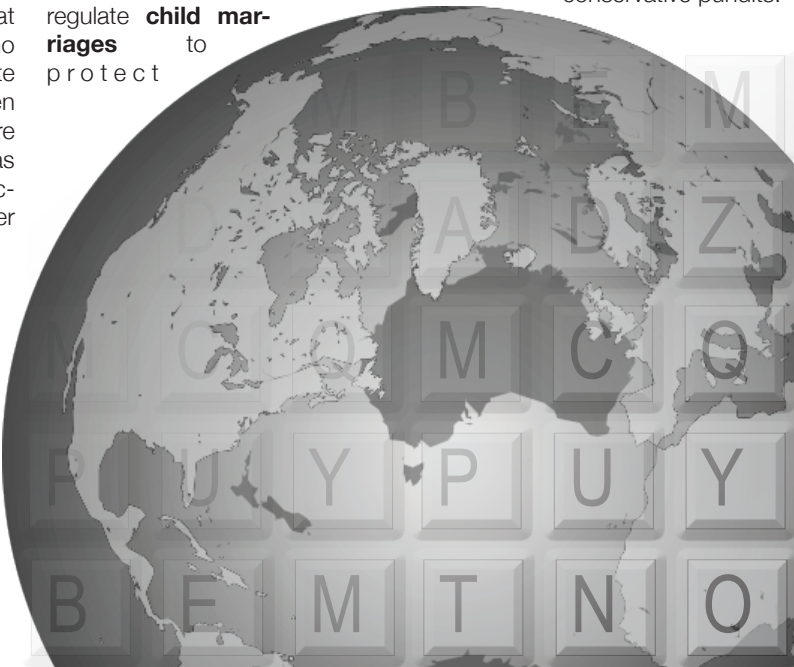
Saudi officials are pushing to regulate **child marriages** to protect

the rights of children and prevent abuse, amid an uproar after a judge upheld a marriage between an eight-year-old girl and a 47-year-old man.

Australian Prime Minister Kevin Rudd called those who engage in **human smuggling** “scum” who should “rot in hell” after the news of a boat explosion that killed at least three Afghan refugees seeking asylum.

Somali **pirates** have been involved in several ship hijackings within the last few weeks. Last week US Navy Seals intervened to free an American ship and captain, and most recently NATO forces helped to free a Belgian ship.

Conservative groups hosted **tea parties** on tax day, April 16, as a way of protesting the Obama Administration, calling for tax reform. Various political commentators questioned the legitimacy of the parties, noting the involvement of Fox News and other high-profile conservative pundits.



Local News

The Colorado School of Mines student group Earthworks will host events in the spirit of Earth Day and the sustainable use of resources from April 18-24.

Mines President, M.W. “Bill” Scoggins will discuss the school’s growing role in bringing renewable technologies and sustainable projects to the Front Range and across the world at noon on April 24 in Berthoud Hall, Room 241.

Mines’ Earth Day Celebration featuring live music by Los Cheesies and Mitten Funk, as well as free food and beverages, begins at 4 PM April 24 on Kafadar Commons.

Dr. Steven P. Castillo has accepted the position of Provost and Executive Vice President of Colorado School of Mines and will begin his appointment July 1.

A rare and sought-after mineral — pyrrargyrite — is the newest specimen on display at the Colorado School of Mines Geology Museum thanks to a generous donation by the David Oreck family.

In celebration, Mines is hosting a specimen dedication at 11 AM on April 18 at the museum, 1310 Maple St., in Golden.

Geller said the remarkable specimen, a relatively rare silver antimony sulfide, is not only amazing due to its contained silver (60 percent), but also for its crystal size, perfection, luster and pedigree. It is one of the most sought minerals among connoisseur mineral collectors.

Courtesy Colorado School of Mines

Balancing energy and security

Sarah Nelson
Staff Writer

Today, the very landscape that once felt so solid beneath the spinning tread of tires is shifting. The ground trembles and splinters to make way for this transition in so basic a commodity as energy, while the tremendous reverberations of the start of this transformation are felt globally. However, the steady grumble of the earth's protest of the depletion of natural resources coupled with the exhalation of greenhouse gases is becoming more amplified. What will be beheld by the vantage point of future generations, and what needs to be accomplished now in order to incur this change?

Guy Caruso, Senior Advisor for the Energy and National Security Program under the Center for Strategic and International Studies delves into many of the facets affecting the energy crisis as well as presenting possible paths to managing the energy transition.

The perspective of the CSIS is that of a shaky frontier; the fluctuating demand growth, the unsure concentration of conventional resources, questionable reliability of delivery systems, and the shift to foreign imports that brings in new players with new agendas, and the environmental issues in conjunction with the economic crisis all compound to be a formidable challenge. The effects of the crisis are acutely felt all around the world, manifesting themselves in forms that range from "resource nationalism" in Latin America, civil unrest in Nigeria, and political turmoil in Pakistan." Caruso continued to outline options for

pragmatically approaching issues within our own borders.

First of all, Caruso acknowledged the severity of the "resource endowment" with regard to oil but stated that "above ground issues" were the focus of the Energy and National Security Program. These issues include the above stated challenges in moving forward with our current energy agenda. In Caruso's opinion, the optimal route would include finding a way to maintain the current energy infrastructure by using unconventional methods to extract oil and to have more access to possible drilling sites. Investments in new production capacity are also necessary if global demand increases because "given natural decline rates, there is a risk of significant liquids supply gap."

Examples of two key issues affecting the energy transition are global climate change and the downturn in economic growth. While the economic crisis led to lower energy consumption, thus lower prices and decreased greenhouse gas emissions, it also reduced supply and investment. These last two components, Caruso argued, are needed to maintain a robust conventional energy system during the transition. This follows from Caruso's statement that, "while renewables are laudable, they aren't presently available in capacity to support an immediate conversion from the current infrastructure".

In conclusion, Caruso stated that the ultimate solution would be a compromise of impacts, mitigation and adaptation to balance the E3 goals of energy security, economy and environment.

From research to deployment America's national laboratory system

Tim Weilert
Content Manager

Think, for a moment, about the future. If you get beyond finals week, and even past graduation, you will find that there are limitless possibilities associated with a degree from Mines. Michael Weis, a Mines graduate, stands as a testament to the institution's impact. Following his time at Mines, Weis took up teaching and eventually secured a position as the manager for the Department of Energy's Pacific Northwest Site Office (PNSO). The MME department hosted Weis as he presented "Using Science to Solve Real Problems."

Weis began by discussing "grand problems" of the past such as soil depletion and food scarcity, and how science has brought real solutions to these problems. "The grand challenge today is rooted in energy and the ability of countries around the world, including America, to come up with ways to control their own energy resources."

The history of the national laboratory system was discussed. "The root of our national laboratory system was the development and solving of one our most recent grand challenges: ending World War II and the Cold War by producing nuclear weapons." However, during more recent times, the Department of Energy has used national labs to integrate technology and talent to solve modern problems. Highlights of the system include supercomputers, biomass conversion, hydrogen engines, particle acceleration, and fusion research.

"The Department of Energy has won more R&D awards than any industrial company and twice as many as any other federal agency. They have sponsored more Nobel Prize winners than any other organization in the world." The American Recovery and Reinvestment Act (aka the stimulus package) has brought new life to the lab system. The influx of resources has allowed for more possibilities in terms of grants, research, internships, and facilities.

Logistics of the system were also discussed. "The government owns all the national labs. The DoE is responsible for running those labs. We do not have the scientific capability to do the detailed research, so we hire contractors, universities, and research institutes to come in and do the research." Weis's job is to specifically oversee contracts and ensure that standards are being met at the PNSO.

PNSO's current research activity, professional partnerships, and facilities were also discussed. In addition to state-of-the-art lab spaces, PNSO features on-site housing, and a unique joint research facility with Washington State University. At the WSU site, approximately 50% of the facility is used by the university, while the other half is operated by national lab scientists. "Half the hallway is a university, half the hallway is a national laboratory. Students are working with internationally renowned scientists."

Weis finished by sharing stories about the results of the research activities at PNSO. The projects covered included an electric grid monitoring station, radiation portals for shipping containers, extending nuclear reactor life, respiratory disease, and blue OLEDs. At the end of the presentation, Weis briefly covered employment opportunities within the DoE.

MAA Regional Conference

Jake Rezac
Content Manager

The Rocky Mountain Section of the Mathematical Association of America (MAA) held its annual meeting at Mines last weekend. The sectional meeting, which was sponsored by ExxonMobil, had the theme, "Increasing Diversity in the Mathematics Pipeline."

The Rocky Mountain Section of the MAA contains institutions of learning in Colorado, Wyoming, South Dakota, and Montana. Approximately 180 people were expected at the conference, though the snow prevented many of these people from attending. Attendees ranged from high school teachers to college professors to graduate students.

The conference included lectures, workshops, and receptions, allowing mathematicians from the same region to mingle. The conferences and workshops were given by prominent members of the Rocky Mountain MAA section, as well as prominent mathematicians from around America. Key among these was the ExxonMobil-sponsored keynote speaker Dr. Gil Strang from MIT. Dr. Strang, an internationally renown Mathematician, spoke about Linear Algebra and its applications.

Colorado College's Dr. Steven Janke, 2008 Burton Jones Distinguished Teaching Award winner, also gave a lecture explaining the Traveling Salesman Problem and its relevance to undergraduate courses. Hood College's Dr. Elizabeth Mayfield also spoke on the topic of undergraduate research on mathematical history and the female contemporaries of mathematician Leonard Euler.

Many students and professors also presented at the seminar.

Presenters from CSM included graduate students included Rachel Miller, Alex Probst, Daniel Heersink, Ashlyn Munson, Christer

[They] spoke on topics ranging from Bose-Einstein condensates and conservation laws of nonlinear partial differential equations to statistical analysis of soil to tablet PC use in science and math classes.

Karlsson, Jennifer Picucci, John Jackson, and Michael Asheim.

Engineering Seminar Dam structure and design

Anand Erdenebileg
Staff Writer

Larry K. Nuss, a senior structural engineer at the Bureau of Reclamation, delivered the Engineering Seminar last Wednesday on the topic of the design and analysis of concrete dams.

Nuss described the history of dams in America, and how the Bureau of Reclamation has learned from the mistakes of the past.

Nuss began his description of concrete dam building in America by talking about the Austin Dam built in Austin, Pennsylvania. The dam, which was built on September 30, 1911, cracked and allowed reservoir water to spill out over the city. Cracks had appeared in the concrete throughout its construction, but they were not successfully fixed.

Dam builders and the Bureau of Reclamation have used the mistakes made in this disaster, and similar dam-related disasters, to prevent similar mistakes from happening. Nuss explained that concrete dam builders have developed different techniques for building dams. Depending on analysis of expected weather and natural hazard conditions, contractors used different amounts of concrete, steel gates, rubber water stops, and plastic joint-filling compounds to control river flow and power generators.

Nuss says the design depends on the purpose of the dam and the location of the dam. There are two types of dams, overflow dams and non-overflow dams. Overflow

Mines faculty included Catherine Skokan, William Navidi, Barbara Moskal, Willy Hereman, Mahadevan Ganesh, Paul Martin, Jon Collins, and Bernard Bialecki. These students and professors spoke on topics ranging from Bose-Einstein condensates and conservation laws of nonlinear partial differential equations to statistical analysis of soil to tablet PC use in science and math classes.

Publishers, such as Pearson, also held exhibits and books sales. Presenters from industry also attended, including Intera, Inc, a geosciences and engineering firm.

"Cracking appears... when the concrete cools off significantly"

dams, conversely, are used to restore power, irrigation, and drinking water supplies.

Most dams have 19" x 6" construction joints. The concrete heats up as it cures, so cooling coils are placed in dams to dissipate heat. In the core of the dam, it is very hot and can take many years for the dam to cool off. "Cracking appears... when the concrete cools off significantly," said Nuss.

Many professionals contribute their abilities to build dams; geologists, seismologists, environmental scientists, geotechnical engineers, civil engineers, structural engineers, computer analysts, hydrologists and hydraulic engineers, mechanical engineers, and electrical engineers all use their skills to ensure dams are successfully created.

In order to make the dam stable, engineers must use risk analyses of earthquakes to review the earth history of dam and they calculate the probability of cracking and destruction. After that, they do the structural analysis, during which they measure how much water should pass through the dam's gates. The engineers then find out how powerful the motor than lifts up the gate should be. They then build foundational walls, and once the whole construction is finished, they build holes through which water can run.



COURTESY WIKIMEDIA COMMONS

Geek of the Week

...Justin Tappan, Sophomore: Geological Engineering

Anand Erdenebileg
Staff Writer

Do you consider yourself a geek?

Maybe a nerd, not a geek. But I'm definitely a NERD.

How did you come to be at Mines?

I drove here in a car.

What is your favorite geeky pick up line?

I don't know, but I always say, let me be your derivative so that I can be the tangent.

What is the geekiest thing you have seen or done?

I had tough days on the first week of this semester. To relax, I went up to the geology lab and looked at the rocks for a couple of hours.

What is your favorite geek joke?

I don't think I have a geek joke.
Star Wars or Star Trek? Why?

Star Wars. I love the robots they have, AT-AT, and they have interesting stories.

What are your hobbies?

I like to be in the outdoors. Like running, biking, camping, etc.

What is the geekiest thing you own?

A Star Wars helmet and the voice changer that my parents bought me for a Christmas gift a couple of years ago.

What has been your favorite class at Mines?

Geologic Principles and Processes.

What is your favorite piece of technology?

My Zune MP3 Player.

What is your favorite movie?

Star Wars Episode 3 and the Matrix Series.

What is your favorite book?

It's hard to pick one, but I like science fiction and fantasy books.

What clubs or activities are you involved in?

I'm a sophomore class representative for the Associated Students of the Colorado School of Mines, I participate at the Intervarsity Christian Fellowship, and the Association of Engineering Geologists.

Who is your role model and why?

My friend Ryan Rowlette, because he's bold about what he believes and he's not afraid to stand up even if he looks stupid.

What is your favorite OS? Why?

I only use Windows.

What is your favorite formula and why?

$Money = (Evil)^{1/2} \Rightarrow Money^2 = Evil$
 $Girls = Time \times Money$
 $Time = Money$
Therefore,
 $Girls = Money^2 \Rightarrow Girls = Evil$

If you were stuck on a deserted island and you could only bring 3 items, what would they be?

My MP3 Player, sunscreen, and Genie-In-A-Lamp.

If you were to come up with a class for CSM what would it be?

Common Sense 101, because I think sometimes we, the engineers,



ANAND ERDENEBILEG / OREDIGGER

assume that the problems are difficult. But the solutions are very simple. So I think there should be a class that teaches Common sense.

If you could be anyone else, who would you be?

I would be Superman. Because Superman has muscles and he can fly.

What is one thing you love at

Mines? One thing you would like to see changed?

I like the people. They are smart, they are fun to talk with, and they know to have fun.

I think there should be more food options for the students.

What music do you listen to?

I listen to Christian rock, Christian rap, and techno.

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STUDENT ORGANIZATION LEADERS

> Questions about how the new tier structure will effect your organization ?

Please stop by the Board of Student Organizations Information Sessions:

- Wednesday, April 22nd at 5 PM, BE 126
- Thursday, April 23rd at 4 PM, BE 126
- Thursday, April 23rd at 5 PM, BE 126

We will be available to answer all questions regarding the Tier Structure and Implementation Plan.

Individual Placement Meetings will be held during Dead Week and over the first two weeks of the Fall 2009 semester; specific times will be announced at the Information Sessions.



NBTG 140

TECH BREAK

Ian Littman, Tech Break Columnist

Last week, the "next big things" were all hardware. This week, there's just one area of focus, and it's hard to tell whether the service has jumped the shark or whether it's still on an upward path toward web-app nirvana. Oprah started using it Friday, for what it's worth. The name of this service, where Britney Spears, CNN, and Ashton Kutcher now all have over one million people "following" them? Twitter.

If you're reading this column, you have probably heard of the service, which forces users to condense their thoughts into at most 140 characters before blasting them out into the "twitterverse." However, you probably still don't know what people use this text-message-sized tool for. The best way to answer that question is to say that Twitter is a microblogging platform, allowing people to share bite-sized pieces of text content in a quick and easy way, at least, while the service isn't down due to being crushed by the infamous "fail whale."

Just like there are different kinds of blogs, there are different ways in which a Twitter account may be used. The most common are sharing links to interesting stuff, using your followers as a sounding board for your questions and ideas, and describing what you had for lunch. In many cases, people post a combination of these three.

Additionally, people can reply to other user's "tweets" (Twitter posts) or message them directly without others seeing. That's how Twitter conversations, Q&A sessions and customer outreach by an increasing number of Twitter-savvy companies and organizations (from Comcast to HP to Mines) work. Since links are long and tweets are short, dozens of URL-shortening websites have sprung up in the wake of Twitter, from bit.ly and is.gd to ow.ly and tr.im (just add an http://).

At first, Twitter was dominat-



COURTESY WIKIMEDIA COMMONS

ed by the tech crowd, with Digg founder, Kevin Rose, being one of the first to net 100,000 followers (people who get alerted, one way or another, when a person posts a tweet). Then came Barack Obama, who has effectively let his account go to seed since November's election. Then came the celebrities and people of more average technical prowess; Britney Spears and Oprah, who posted their first tweets Friday, come to mind for this category. As of this writing, Oprah has 287,000 followers, up from maybe 30,000 on Thursday and climbing by a few every second.

Then there's CNN's Breaking News Twitter feed, only recently

bought from a fan by the media conglomerate. Second to reach seven figures, CNNBrk (the account's username) is light on updates, leaving chattier twittering to @CNN (<http://twitter.com/cnn>).

At the top of the heap is @aplusk, or Ashton Kutcher in real life. The celebrity uses the service in an interesting, non-annoying way and thus, with the help of an active fan base, made the million-follower milestone shortly after midnight, Friday morning. After making a short speech about the power of the individual in today's media economy, he sent a \$100,000 check to Malaria No More, a move followed, copied, or doubled by celebrities and Twitter followers alike. This wasn't the first time Twitter had been used for a charitable purpose; Charity Water (charitywater on Twitter) raised several hundred thousand dollars through "twestivals" around the globe to bring clean drinking water to underprivileged nations like Ethiopia.

The bottom line: Twitter is a powerful tool, since people will generally listen to what you have to say if you can say it in 140 characters or less. Around 200 people do me the favor (I'm iansltx there). One thing's for sure, at least for the near future, Twitter is here to stay, so long as their hardware can keep up with the exponential increase in demand that they're facing.

Geek of the Week 2

Alec Westerman
Staff Writer

Do you consider yourself a geek?

I don't think so, probably more of a nerd.

What do you think is the difference between a geek and a nerd?

Well... Um... Geeks are like the kind of people that are passionate about video games and... I don't have Star Wars memorized and I guess I don't have as many social issues as geeks.

Do you think others consider you a geek?

No... They probably think I'm a dork sometimes because I don't hesitate to be silly sometimes and I don't deny my absentmindedness.

What do you think makes you a geek?

Probably my passion for homework.

Is it true that you study all weekend every weekend?

This semester, for the most part, yes.

How late do you generally stay up for homework?

Until midnight, but it can be up until three. Last semester, I spent every night at the library until midnight. This semester, it only happens three times a week, but that generally means I'm staying up studying somewhere else twice a week.

How many hours a day do you study?

About five to eight hours a day, I would say safely, and on Tuesdays and Thursdays both I have one class that I teach...

What all do you do in that time?

If I'm not doing actual homework, I'm preparing for class and trying to learn the material.

What's the geekiest thing you've done?

I remember it was dead week freshman year, my roommate and I taped Christmas lights in the window in the shape of pi.

What is the geekiest thing you own?

I have about 45 pencils and

...Kory Risky, Sophomore: Engineering Physics

pens in by backpack but I only use one pencil and I don't use pens... I own a lecture recorder... that I use it to record all my lectures just in case my exhaustion from staying up late hinders me from understanding anything.

What is your most embarrassing memory?

In fifth grade basketball, after a winning shot, I went ahead and took another and missed and took another and missed. I guess I didn't know my team had made a winning shot, but I rebounded and rebounded again anyway... another one is that, walking as a bride's maid, I tripped on my dress at my brother's wedding.

If you were going to be stranded on a desert island and could only take three things with you, what would they be?

First thing that comes to my mind, pencil, eraser, and calculator. In reality, I don't know.

If you won a million dollars, how would you spend it?

I would invest some and save some... I'd feel better about attending more school... I'm not greedy.

What are your hobbies?

I like to play the violin. When I have absolutely nothing to do, which is not very often, I like to learn piano too. I taught myself how to play so, occasionally, I'll pick up a piece and try to play it.

What clubs are you involved in?

Society of Physics Students.

What do you plan to do when you get out of college?

Ideally, I would be in research and development for alternative energies.

What do you do in your free time?

I like to spend a lot of it hanging out with friends and spending time with my family.

Mac or PC?

PC... I guess I'm not a computer geek so whatever my parents had... I took that... As long as it has Word and Internet I'm content.

What things in life make you happy?

I could get pretty deep and philosophical with that one; otherwise, music makes me happy, a really good studio... I would have to say, first of all, my family and my friends.



ALEC WESTERMAN / OREDIGGER

Campus Benefactors: Winfield S. Stratton

Jake Rezac
Content Manager

Stratton Hall is a place many Mines students never venture. Home to LAIS and Math offices, as well as a number of conference and meeting rooms, the building is often quiet and peaceful. However, the history behind Stratton Hall, and the man after whom it is named, is among the most interesting stories in Mines history. Winfield S. Stratton was a millionaire gold prospector who donated large sums of money to Mines as well as possessing an egalitarian view uncommon for the time in which he lived.

Winfield S. Stratton was born in 1848 in Jeffersonville, Indiana to Myron Stratton, a ship builder. He studied carpentry in the shipyards where his father worked and, in 1868, moved west to Colorado Springs. Soon after moving to Colorado Springs, which was known as a resort town at the time, Stratton opened a carpentry and contracting business. Although successful in this venture, by 1874, Stratton had been lured into the gold prospecting business by the promise of riches. He used money made from his business to fund summer prospecting trips.

Over the next 17 years, Stratton would continue to prospect for gold during the summer, his search proving to be fruitless, year after year. Stratton even took time to study mineralogy at Colorado College. Finally, on July 4, 1891, after years of unsuccessful pursuits, Stratton found what would

become Independence Mine, one of the most productive gold mines of the era. His success at Independence Mine would allow him to stake a claim at the nearby Little Portland Mine, which would be the most productive mine in the area.

For the rest of his life, the so-called "Midas of the Rockies" would continue his mining pursuits and generously spend much of his huge fortune. His philanthropic efforts were far-spread; when the town surrounding his mines burned down, Stratton paid for much of the reconstruction. He also bought all the wash-women in the town bicycles, to aid them in their work. Only a few years before his death, Stratton donated land for the Colorado Springs City Hall, Post Office, and Courthouse. Further, he gave the School of Mines its first philanthropic gift of \$25,000.

In 1899, three years before his death, Stratton sold Independence Mine for 10 million dollars, an immense fortune at the time. The same year, he was named a CSM trustee and was elected president of the Board of Trustees in 1901. While he was a trustee, the money Stratton had donated was used to start construction on Stratton Hall, originally a hall of metallurgy.

In 1902, Stratton died, leaving a legacy of philanthropic effort uncommon in the Colorado area at the time. In his will, he designated that his remaining fortune be used to build a home for the poor, sick, and elderly in Colorado Springs. The Myron Stratton Home, located near the Broadmore Resort, was built from this designation, and is still in operation today.

BREE WALTMAN / OREDIGGER



Help Earth, help an animal

R. Brunhart-Lupo
M. Garrett and T. Garrett
Guest Columnists

We know you're crunched for time, so we've got a simple list of things you can do to celebrate and help out on Earth Day. It won't help with Calc III, but it might be kind of fun!

Here it is - easy ways to pitch in on Earth Day. Easy enough as, say - bringing your own utensils at lunch - to the only slightly more complicated getting together to make a vegan meal with a bunch of friends. Before the groaning starts over meal changes - today's article is brought to you by a vegan/vegetarian, a meatatarian and a dairyatarian. Yes, we know the last two words are made up, but we can't find a dictionary. You can be assured that any meal ideas were agreed on by all three of us - and tested on an independent party. Other ideas were tested on six, fur-covered,

chew-toy chasing, four legged subjects - who threw themselves into the testing every time, and a cat. No animals, plants, or humans were harmed in the testing of our ideas... with the exception of that incident with the outlet.

Idea #1 -

Turn off the TV and go play with your dog... or your neighbor's dog... or the dogs at the local shelter - they always need people willing to volunteer and come play with the animals there! One - you save power, thereby helping the Earth. Two - it has been proven, people have lower stress levels when they can play with an animal (which can only help with the stress of finals!), and three, running around like crazy and fighting over a chew toy isn't bad for you, the dog or the Earth - simple, fun and easy!

Idea #2 - Bring your own utensils to your meals at the cafeteria, or the food court. Yes, we know, they provide utensils, but all three

of us are fans of the 3-in-1 utensil (we're lazy - it is a spoon, a fork and a knife in one - so there are fewer things we can lose), which saves on disposable utensils and keeps down the number of metal utensils that get washed - which saves on water and the amount of cleaning chemicals going down the drain.

Idea #3 - Now, we understand this may not be the most popular, but go vegan or vegetarian for the day - or even just one meal a day. If you're really adventurous, try that for a day a week, or a week a month, etc. It's a long chain of how you help the Earth, but it comes down to this: making "meat" and dairy products costs a lot - for the Earth. Lots of not-so-great by-products come out of the whole process, and some

It has been proven, people have lower stress levels when they can play with an animal.

of us feel REALLY bad for the cow, chicken, pig, fish - whatever it is that is now on a plate. You'll help the Earth and help yourself too - even we'll admit that a load of vegetables or fruit can't hurt, even if we'd rather a burger or ice cream. You can even get together with a bunch of other people and kind of throw a vegetarian/vegan picnic/potluck type thing - it is actually fun, and, hey, you might even find out what you missed in last week's lecture when you fell asleep.

And lastly, simple, easy: Idea #4 - Unplug things. When you aren't using them - unplug them! Yes, we know, we can hear the computer people screaming from here - come on, it won't hurt.

Unplug things when you're going to leave, unplug things when they aren't in use, or if you don't think you'll be using them - it isn't hard to plug back in the lamp if you decide you need it. Just be careful when you do the whole unplugging thing. As can be attested to by all three of us - the TV can pack a nasty bite when it doesn't want to be unplugged. Then your hand is all numb feeling for a while. And you can't really tell when the dog bites your hand and not the tennis ball. Yeah... watch out for that!

Other ideas:

Recycle

Bike to school (only when there isn't 3+ feet of snow)

Insulate out your house/dorm/apartment so you don't have to heat it as much

Have some solar powered things - we all have some solar lights - they work really well!



Curriculum : 130.5 credit hours

Core	Physics Electives
• General Physics (2 semesters) • Modern Physics • Fluid Mechanics • Mechanics • Mathematical Physics • Quantum Mechanics • Electronics (2 semesters) • Thermal Physics • Electromagnetism (2 semesters) • Experimental Physics (2 semesters) • Senior Design (2 semesters)	• Astronomy • Advanced Quantum Mechanics • Biophysics • Solid State Physics • Nuclear Physics • Nanoscale Physics • Astrophysics • Computational Physics • Quantum Optics • Optical Engineering • Nuclear Engineering • Photovoltaics • Solid State Devices



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designated as a "Program of Excellence" by the State of
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of only 14 Engineering Physics programs in the U.S. that is
ed by the Accreditation Board for Engineering and
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ctive professional student organizations (the Society of
Students, SPS, and the Society of Women Physicists, SWP)



ALL PHOTOS ZACH BOERNER / OREDIGGER

Beer Review: Boulevard Brewing Company

Akira Rattenbury
Staff Writer

I am diverting from my global beer trek this week, and thought a hearty American microbrew was a good choice.

Having sampled some Boulevard at the Great American Beer Festival last fall, I was taken back to see their sampler on sale for \$12 in a Silverthorne liquor store. With I-70 closed, I knew it was a good choice to keep me company until I returned to Denver.

The sampler came loaded with Boulevard's wheat, stout, porter, pale ale, and two specialty wheat ales. Good reviews abound for their Saison, IPAs, and porter. With only the porter included, I falsely assumed their other brews would be great.

Wheat Beer

What a downer. First beer out is a complete dud. The bottle poured a browner than expected translucent yellow color with a quickly dissipating head and no lacing. The beer was flat, lifeless, and had an unpleasant damp sourness. Only a slight honey lemon taste reminded me there are good white beers and then there's this crap. It's just a mildly yeasty Keystone with no carbonation.

Fellow sampler Tom Day noted, "There's nothing there. Tastes pretty bland." Must have been a bad batch. *1/5 stars*

Pale Ale

Next up, I moved to the Pale Ale. The pour offered a nice amber orange hue with subtle malt tones and I detected a typical fruity hoppiness, just barely. This wannabe Sierra Nevada kept its lacing and a small head.

Sips confirmed my fears. Like the wheat beer, this was a dud. The promise was there, but the texture was mixed and lacked the great full-

ness and balance I wanted. Splintered malts and grain notes mixed with some hops made this ale neither disgusting nor distinguished. A watered down substitute with good looks that failed to deliver.

So far, I sense Boulevard started as a noble bathtub homebrew operation, but somewhere along the road they traded substance for skimmed ingredients and extra water. *2/5 stars*

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an amber ale. Quickly dissipating head with moderate carbonation throughout the glass. Mild smell gave way to a subdued, yet balanced spiced taste with minimal yeast. The apple sweetness after-

taste is pleasant and very drinkable. *3.5/5 stars*

Bully! Porter

Very good beer. Dark purple-red beer with ample malts in the aroma and taste. Perfect roast with raisin-like flavors and dominant chocolate/coffee notes. It lacks alcohol content, has a bit of watery taste and mild mouthfeel which holds it back. Best yet. *4/5 stars*

Zon Beer

The third wheat beer gets it right. Typical pale golden color matches typical spiced aromas with banana scent on top. Taste was firmly centered on coriander. You may never know how minty, refreshing, complex, soothing, and potentially spicy coriander can be until you try this beer. Cloves and fruity zests complete this flavorful beer which finishes just a tad watery like all the others. *4/5 stars*

Overall, this sampler was great for its porter, witbier, stout, and the Lunar Ale. Boulevard failed to hit any beer out of the park, and instead had one astounding dud.

Overall, this sampler was great for its porter, witbier, stout, and the Lunar Ale. Boulevard failed to hit any beer out of the park, and instead had one astounding dud (Wheat Beer). Try the Sam Adams or New Belgium sampler 12-pack for comparison.



AKIRA RATTENBURY / OREDIGGER

Must See Movies Westerns

Benjamin M. Weilert, Staff Writer

In our society of consumerism and urban sprawl, we sometimes forget what life was like in the old west. Back then, you did what you had to in order to survive against the daunting circumstances of life on the frontier. Law was mainly ignored as long as one could shoot better than the rest. Hollywood has been producing movies that use the rough-and-tumble lifestyle of the western hero for years now. Even if the western genre has begun to decrease in more recent years for movies that favor constant action and CGI, there are some classics of cinema that fit right into this archetype. This week's Must See Movies examine three films that make us all want to hop on a horse and ride into the sunset of this semester.

1. Stagecoach (1939)

Director John Ford has always been a staple of the western genre, just as much as John Wayne is its quintessential actor. In *Stagecoach*, John Wayne finally grew out of his status as a B-list movie actor to star in his breakout film. Ranked at #63 on the American Film Institute's (AFI) first top 100 list, *Stagecoach* is a great movie for people who might not even enjoy westerns. One of the most dangerous activities in the old west would probably have to be travel, which is why taking a stagecoach to another town could be the last trip you'd ever take. In this film, a group of people including a drunken doctor, a pregnant woman, an unethical banker and the gun slinging Ringo Kid (John Wayne) are all on the same stagecoach together. The only trouble with this trip is that their route goes straight through Geronimo's territory. *Stagecoach* won two Oscars and is filled with action, suspense, comedy, and John Wayne.

2. Unforgiven (1992)

Perhaps the best western in the last 20 years, *Unforgiven* is just one of many films that shows that Clint Eastwood can direct (he won the Best Director Oscar for this film, and the film itself won Best Picture for that year) as well as act. On top of two more Oscars and a ranking of #68 on AFI's most recent top 100 list, *Unforgiven* shows the audience that old habits die hard. As long as everyone tries to live quiet lives, a town in the old west can run pretty smoothly. However, if someone decides that they don't want to abide by the rules, all hell can break loose. After a bounty is placed on some men who disfigured a prostitute, William Munny (Clint Eastwood) is goaded back into his gun slinging ways by a wannabe hotshot known as "The Schofield Kid." After picking up his old partner, Ned Logan (Morgan Freeman), Munny and company set out to collect on the bounty.

3. High Noon (1952)

Of the four Oscars that *High Noon* won, Gary Cooper's Best Actor Oscar was perhaps the most obvious. Placed at #27 on the AFI top 100 list, *High Noon* is a classic tale of revenge and sticking up for what is right. As is the case with most westerns, Will Kane (Gary Cooper) has decided to hang up his gun and settle down with his wife, to whom he has just married. Unfortunately, Frank Miller has something to say about that. Miller is out of prison and coming back to town to exact his revenge on the lawman who sent him there. When Kane asks the townspeople that he has spent years protecting for some assistance in taking down Miller, he gets no help whatsoever. As the clock ticks closer and closer to high noon, when Miller's train is expected in town, Kane prepares himself to take on Miller's gang alone.

For Homework – See *The Searchers* (1956)

Congratulations CSM Seniors!

The world awaits, and you need a way to get there.

To help you on the road to success we are now granting auto loans to any CSM senior who has a signed job offer.*

Even if you don't start your career until after a well-deserved summer break, you can get your new set of wheels *right now*. The loan amount you qualify for is based on how much you are scheduled to make at your new job.

Best of all, your first payment is not due till September. So, if you are going to take a summer break, you can take a payment break as well.

Act now, our new and used auto loan rates are as low as 5.80% A.P.R.** And we offer 100% financing with no money down!

*This offer expires on June 30, 2009. All loans are subject to the terms and conditions of Credit Union of Colorado's loan policies. **Rate quoted as of April 12, 2009. Your Annual Percentage Rate (APR) may vary depending on your credit worthiness, term and collateral. Rates subject to change. Interest will accrue during the entire term of the loan including the non-payment period.

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Movie Review: Repo! The Genetic Opera

Bree Waltman
Staff Writer

Are you tired of the usual movies seen today? The ones with cheap matinees and lots of loud high-schoolers? Looking

This film perfectly combines *Phantom of the Opera* with any post-apocalyptic story.

for something a little odd, but still good quality? Want to feel like you are there? Then your answer is *Repo! The Genetic Opera*.

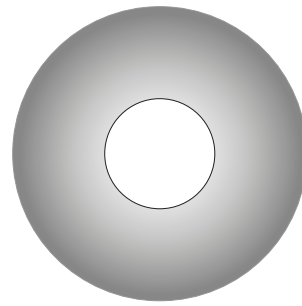
This film perfectly combines *Phantom of the Opera* with any post-apocalyptic story. In the near future, where organ failures plague people worldwide, a company, GeneCo, rises from the numerous graves to save the population by making organ transplants available... at a price. But anything that rises must fall. With the impending death of the creator of GeneCo, events are set in motion.

Shilo Wallace (Alexa Vega) spent her life cloistered in her room until her life suddenly changed through a chance meeting with the Graverobber (Terrance Zdunich, also the co-writer). Secrets are revealed, gambits unfold, and a new heir to GeneCo is named.

Don't be put off by the quantity of blood, there really is a sweet core to this red stained tale. You'll gasp, you'll laugh, you'll cry, and you will want to sing. A great story complemented by a talented cast, including Sarah Brightman, the singer for which the role of Christine Dae from Andrew Lloyd Webber's *The Phantom of the Opera* was written, Kevin Ogre (playing Pavi Largo) from Skinny Puppy, and Anthony Head (playing Nathan Wallace) who may be recognized as Rupert Giles, the librarian from *Buffy the Vampire Slayer*. Many other talented actors and actresses contribute to this film, which is sure to quickly become a cult classic.

Don't be put off by the
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to this red stained tale.
You'll gasp, you'll laugh,
you'll cry, and you will
want to sing.

For homework, see how quickly you can spot Paris Hilton without looking at the credits. Also, as a note, this is a mature movie, there is blood, and even if there is humor, this film is not advised for young children. So go out and enjoy *Repo! The Genetic Opera*.



Music Review

Dear Diary, fM Static



Benjamin Johnson
Staff Writer

Background

Lead singer Trevor McNevan and drummer Steve Augustine from the band Thousand Foot Krutch (TFK) decided to experiment with a different style and formed the band FM Static. Straying from the hard rock exhibited by TFK, the purpose of FM Static was to relate to the teenage audience through punk style and lyrics that appealed to that stage in life. Widely praised and arguably their best album, *What Are You Waiting For* (2003) was an incredible entrance into the market. After the release of their first album, FM Static toured extensively for two years before making their second album, *Critically Ashamed* (2006). Another three years passed before the much-anticipated album *Dear Diary*.

Memorable Song

Easily the most memorable and best all around song on this album is "Boy Meets Girl (and Vice Versa)." Immediately, the song introduces a new style that has not been found on any of FM Static's previous albums, it is a nice change. The song describes, as

the title suggests, a boy and his interaction, or lack thereof, with a girl who “musta been sent from another planet/break my concentration/change my understanding/cause until now I thought that all girls were the same.” It is one of those songs that all guys, and even girls in the opposite situation, can relate to, the highly awkward, yet enjoy-

Immediately, the song introduces a new style that has not been found on any of FM Static's previous albums.

able, meeting with that special girl.

Least Favorite Song

"The Shindig (Off to College)" is a fitting end to the record with the style and theme, an upbeat song reflecting on anticipation for the future; however, the lyrics are often weird and often do not make sense. That is really the only downside to the song and the record as a whole.

In Closing

As a concept album, *Dear Diary* obtains the desired effect: it is easy to imagine that all of the

songs and their lyrics are about a boy figuring out who he is and where he is headed in life. ***Dear Diary*** is a fantastic escape from the reality of life. It is an album that will take you back to the glory years of high school, letting the older generation reminisce about the decisions they made that shaped their morals and purpose in life and will provide support and insight for the younger generation currently trying to answer those questions that will determine their future.

The only drawback to the album is that the second half of the record is slower than most fans are accustomed to. This is a necessary change because the slow feel represents the times when a teen must contemplate the future and be serious about it, but a lot of fans might not catch on to the importance.

This is another great album from a great band that was started as a side project. There is not anything unique musically, nothing that is not found in other punk bands, and there is not anything tremendously advanced or difficult about the music, but *Dear Diary* is an album that is definitely going to be enjoyed.

The advertisement is set against a dark background with a subtle pattern of diagonal lines and faint, stylized circular motifs. At the top center is the Yard House logo, which consists of a dark oval with a white border. Inside the oval, the text "GREAT FOOD • CLASSIC ROCK" is at the top, "Yard House" is in the center in a large, bold, serif font, and "WORLD'S LARGEST SELECTION OF DRAFT BEER" is at the bottom. Below the logo, a paragraph of text describes the eatery. Underneath that is a line of text listing meal periods. The "HAPPY HOUR" section is highlighted with a light gray background. It features the words "HAPPY HOUR" in large, bold, sans-serif capital letters, followed by a vertical line and two lines of text specifying the hours. Below this, a horizontal line separates the header from the list of items. The list includes prices and descriptions for various drinks and sliders. At the bottom, the address, phone number, website, and a responsible drinking message are provided in a smaller font.

GREAT FOOD • CLASSIC ROCK

Yard House

WORLD'S LARGEST SELECTION OF DRAFT BEER

An upscale-casual eatery known for its extensive menu of American fusion cuisine, classic rock music and world's largest selection of draft beer.

LUNCH • DINNER • LATE NIGHT DINING

HAPPY HOUR | DAILY • 3PM–6PM
DAILY • 10PM–12AM

SELECT HALF-PRICED APPETIZERS

\$3.50 Domestic Pints • **\$4.00** Craft/Import Pints • **\$4.25** Goblets • **\$4.25** Well Drinks
\$5.75 House Martinis • **\$2 OFF** Wine by the Glass • **\$6.25** SLIDERS (CLASSIC OR BÉARNAISE)

14500 WEST COLFAX AVE • LAKEWOOD • 303.278.YARD • yardhouse.com

Please drink responsibly! Yard House supports designated driver programs. We card anyone who looks under 35.

How to survive the economy

Part two

Mike Stone
Fool's Gold Content Manager

Dates
You've got a girlfriend or boyfriend and you want to show them a good time and don't want to break the bank. Here's some date ideas you might not know about.

1) Cook dinner together. This counts as both an activity and a meal. Plus, it's cheap!

2) Go to Golden Bowl on Wednesday nights for dollar games and shoes.

3) Go to Hobby Lobby and get an arts and crafts kit in a box (something like a bird house). Sit down and make something together and have a great time. (Courtesy of Danny Sorenson)

4) It's Spring and the weather's getting nicer, so go camping. An easy drive up to Rocky Mountain National Park for the weekend never hurt anyone. If you don't have the camping supplies, hit up the ORC at the Recreation Center. They'll hook you up with great prices.

5) Head down to Clear Creek with two \$3 rented rafts from the ORC and take a couple of trips down the river. It's that time of year so, why not?

6) Dinner and a movie is good, but why not dinner and a game? We've got plenty of varsity and club sports going on every week, so bring a date and cheer for your home team too!

7) Go rock climbing at the Recreation Center. That's just simple physics, really.

These are just a few, but it is good to know that even though the economy's tough on you, the old ball and chain doesn't have to bring you down even more!

Online
In this fast moving world, it's not uncommon for the tech-savvy and the lay alike to make purchases online. If that's your prerogative, try some of these ideas to make sure you're not getting duped into scams or high prices.

First, make sure you are buying from a reputable website. What's a simple way to check it? Google it! If anything with the words "internet scam" pops up, don't do it.

Found what you're looking for, but the price is still too high? A quick visit

to RetailMeNot.com lets you enter in the website you are purchasing from and will pull up the best coupons and discount offers only known to those on the email lists. Sometimes 10%, sometimes \$20, sometimes nothing, it doesn't hurt to take a look and see if there's a code you can enter in at Checkout.

If flights to home or vacation are your thing, airline prices couldn't be better than RIGHT NOW. Trips to Vegas from Denver were \$89 round trip last week. Also, if you visit StudentUniverse.com, they offer great deals on flights and hotels just for being a student.

Finally, Ebay and Craig's List can work for you in two ways.

1) You can find your school books, video games, and Star Wars Action figures for much less than at a store.

2) You can use it to make some extra cash! Why are you still waiting? Put all the clutter in your room onto the internet highway and sell it to other people. Everyone's looking for deals - give it to them!

Clothing
As bad as it sounds, Good Will and the Arc are still great places to find some quality clothing even if it's not for a costume party. The obvious areas to stay away from are socks and undergarments. Some things should never be resold.

Here in Golden, we have good selection, but again, as trashy as it sounds, the better neighborhoods have better selection. Hit up a Good Will in Cherry Creek and you'll notice the difference. That is the place where you can find some reputable clothes and maybe even some pants that go all the way down to your shoes.

Additionally, don't forget to grab free t-shirts at school events. If there's one thing this school knows how to do, it's give out t-shirts.

Utilities
Listen to Governor Bill Ritter and try to save some energy! It will save you money too.

If you don't already, use those crazy new twisty light bulbs. They're awesome. Also, turn off lights that aren't in use and turn your computer off every once in a while.

Since the summer months are coming, open your windows at night to let in cool air for the hot day ahead. This way you don't use the air con-

ditioning as much. You've just got to remember to close them in the morning.

Finally, if you really want to get desperate; at your next party have all the guys pee outside. This will naturally save you some on the water bill. (About 9 cents) Just avoid the chrysanthemums.

Visit ColoradoEnergy.org or Colorado.gov/energy for more tips and tricks that will keep your rent check down.

Economy Philosophy
Here are some general guidelines that just didn't fit into any of the other categories. These are things you can do to make sure you're spending your money wisely.

1) Think of your next big purchase and find three different stores that sell it. Visit those store's websites once or twice a week and watch for sales. Why spend more, if you can wait a day and spend less?

2) Take money out of the ATM and make purchases with cash. If you use your debit card all the time, it's tough to see where the money is going. If you use cash, you will be more aware of how much you are spending and where.

3) Use your old change. Try not to break a dollar everywhere you go. Stick some coins in your console cup holders and use it the next time you're at the drive thru.

4) Decide what's important to you and limit yourself to three. These are the things you're allowed to spend money on. Everything else is useless. Stick to what's important and try not to get the stuff that gives you buyer's remorse.

5) Now is a good time to get your Masters Degree. If you're a senior and the job market scares you a little bit, why not avoid it for a year and stay here at Mines? Maybe in a year, most of this will have passed and you will be better off in two ways.

6) Avoid the Mall. Store prices are higher to compensate for high rent rates.

7) Go to store closings and liquidation sales. Yes, the economy is bad and it's terrible that a business has to close because of it, but it doesn't mean you can't take advantages of the great prices!

Use these tips and go try to save some money. For reading this, you now owe me five dollars.



Minds at Mines

Green ways to save some green

Roby Brost
Staff Writer

It's all over the news, in the media and plastered on many new products. Green. Environmentally friendly. Pricey. On a science and engineering college campus, many students are eager to adopt more environmentally friendly practices, but are often daunted by the large price tags that often accompany such practices. In honor of earth week, students around campus shared some of the ways they have been friendly to both pocket book and the environment.



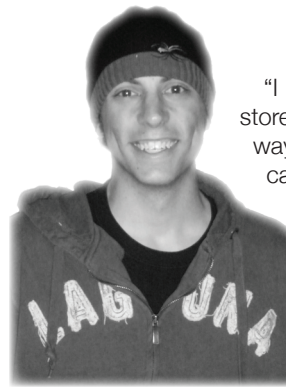
"One of the quickest and cheapest things to do is to recycle. It is as easy as throwing things away into a trash receptacle. On campus, this is a free service. One of the easiest things to do is to use CFLs (Compact Fluorescent Light-bulbs). They are a little pricey, and they take a little while to warm up, but they are a lot more energy efficient, and this saves big on the energy bill."

Kate VanSusante



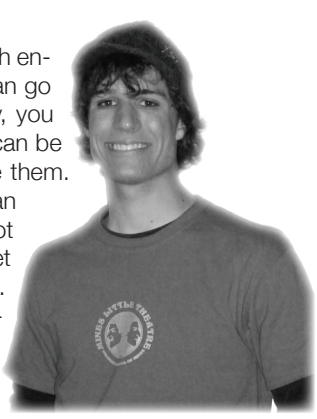
"I try to walk to classes. That way, there is one less vehicle on the road, emitting more CO2."

Matt Taulton



"I use reusable grocery bags at the grocery store. I take two or three of them with me, and that way I don't have to use plastic or paper ones; I can use the same bags every time I need to go get food. It's cheaper in the long run too. They are only three or four dollars, and using the same bags over and over eliminates waste, and the need for all those other bags."

Tyler Rodenburg



"Being a college student and being both environmentally and economically friendly can go hand in hand. For instance, after a party, you may have extra Solo cups left over, they can be thrown away or you can wash and reuse them. If you reuse them, something that can take thousands of years to degrade is not thrown away and you're saving the wallet by saving money on supplies for the future. Supplies can add up to ten of fifteen dollars per week, and that can add up over the year. It's one easy way to reduce the carbon footprint and save some cash. Another good thing to do is to buy in bulk. Get the five pound bag of spaghetti instead of individual packages. It is usually cheaper and it cuts down on packaging waste."

Doug Morter



"Instead of buying new water bottles every time I want a drink of water, I have a nice reusable water bottle from SWE. That way I don't waste the plastic bottles every time I want a drink, and also save myself the dollar I would have to spend if I didn't have a reusable one."

Devi Rao

ALL PHOTOS ROBY BROST / OREDIGGER

Editorials Policy
The Oredigger is a designated public forum. Editors have the authority to make all content decisions without censorship or advance approval and may edit submitted pieces for length so long as the original meaning of the piece is unchanged. Opinions contained within the Opinion Section do not necessarily reflect those of Colorado School of Mines or The Oredigger. The Oredigger does not accept submissions without identification and will consider all requests for anonymity in publication on a case-by-case basis. Submissions less than 300 words will receive preference.

Tim's two cents

A Decade of Fear and Hope

Tim Weilert
Content Manager

April 20, 1999, 11:30 AM. I was sitting in a lunch room, I was 10 years old. I remember hearing the news about Columbine and not being able to grasp what had happened. Even to this day I don't quite know what to make of the event.

September 11, 2001, 8:40 AM. Getting ready for another day of middle school and I happened to turn the TV on. The images I saw were instantly burned into my memory. I told my mother, she was in utter disbelief.

I tried to numb myself to the

dark realities of the last 10 years, but have since given up living in denial. It is no wonder that more people go on anti-depressants and seek to escape reality.

However, I need no pills, I need no psychotherapist.

Although the last 10 years have shown the destructive capabilities of humanity, I have also seen the resilience of society. From rebuilding projects following destructive storms, to community service projects, I found joy in helping the less fortunate.

The challenge is to get out and give back. As I mentioned last week, community depends on solidarity and depth. A practical

way to find both of these things is through service. As a young teen I was involved with the Boy Scouts, and I gained a real appreciation for volunteering. As I continued to grow, more intense opportunities presented themselves. Now, after having volunteered and worked in everything from humanitarian aid to disaster relief, I can say that I have never been happier than when I was giving back.

There are many organizations on campus devoted to service, so opportunities exist and are close. I would challenge every person reading these words to put down the newspaper, get up, and find a way to give back... today. Get active, give back, and experience the hope that humanity still has to offer.

It is no wonder that more people go on anti-depressants and seek to escape reality.

Rugby: ruck n' roll

Benjamin Johnson
Staff Writer

Sixteen teams, one champion. A spot at the national tournament was the goal that the CSM rugby club set out to accomplish during the 2008-2009 season. A season full of drama, pain, and dedication was rewarded when Mines beat Texas State 34-19 for a birth into the national tournament in Florida on April 17-19.

The best part of being able to play on the national level is "just to play the best teams in the nation," said Victor Mazzarella. His brother, Vince, responded that the best part is "to know you are at the elite level." As a team that is smaller in physical stature, Mines overcame the lack of size with the ability to

The best part of being able to play on the national level is "just to play the best teams in the nation."

adapt their style of play to beat opponents. Wins over important teams such as Mesa, Western, and New Mexico Tech provided the team with a phenomenal season and the eleventh seed in the tournament. After beating Texas State in the regional tournament, Victor responded that it was the "most excited I have ever been" and then, "from there we booked our place tickets and are heading to Florida."

Club rugby at Mines has been consistently successful appearing at the regional tournament numerous times. Winning is not the only benefit of playing on team, however. Victor's favorite part of being on the team is "by

far the players, everyone is really friendly and nice. Also, Coach Anthony Ford has been the best of any coach I have ever had." For Vince, the greatest benefit of being on the team is "hanging out with the guys on the rugby team, they are a bunch of fun to hang out with." The team is very tight knit, Vince described, "we have been with each other for so long you just have fun and joke around," though Victor was quick to point out that "I always felt we were a bunch of hooligans."

Next year the team plans on retaining all but one player, which should make Mines one of the most dominant teams in the country. The team is also looking forward to any new players interested in playing rugby. Anyone can join the rugby team because there are no tryouts, but everyone who plays must earn their spot.

SCOREBOARD

Courtesy CSM Athletics

The Colorado School of Mines men's and women's indoor track & field teams placed 25 student-athletes on Academic All-Rocky Mountain Athletic Conference teams, as announced today by the RMAC. To qualify for Academic All-RMAC recognition, student-athletes must have a cumulative grade point average of 3.20-or-better, be a starter or key reserve and have completed a minimum of two consecutive semesters (or three quarters) at their current institution.

Colorado School of Mines earned a pair of Rocky Mountain Athletic Conference (RMAC) victories against Nebraska-Kearney on Saturday afternoon at the CSM Softball Field. The Orediggers won game one by a score of 7-2 and pulled out the 4-3 victory in the bottom of the seventh inning in game two on an RBI double by Katie Kocman. The Orediggers (27-14 overall, 19-7 RMAC), ranked third in the most recent NCAA Division II Central Region Poll and receiving votes in the NFCA Top 25 Poll, will play a doubleheader against UC-Colorado Springs on Tuesday, Apr. 14th beginning at 2:00 pm.

Colorado School of Mines' Kiera Benson has been named the Rocky Mountain Athletic Conference Women's Track Athlete of the Week for events taking place during the weekend of Saturday, April 11. Benson, a sophomore from Needville, Texas (Needville High School), was named the Women's Track Athlete of the Week (Feb. 28th) during the 2009 indoor season. At the University of Colorado Invitational on Saturday, April 11, Benson won the 100m with a provisional qualifying time (12.10) and broke the school record. Benson also placed third in the 200m (25.55) and sixth in the triple jump (10.25m).

STUDENTS

YOUR STUDENT BODY
PRESIDENT, KEVIN DUFFY,
INVITES YOU TO THE FINAL
ASCSM MEETING OF THE
YEAR.

The next ASCSM meeting is
April 23 at 7 PM in Student Center
Ballrooms A and B.

Not only is this the last chance
to see your student government
in action, but it is also the meeting
where the new ASCSM representatives
are initiated into their new roles. Be there to see
it!

Earthworks presents:

EARTH WEEK 2009

Wednesday, April 22nd @ 4 PM: CTLM 102

Speaker: David Wann – Culture Shift: Creating a Sustainable Economy
Help plant trees around CSM @3PM. RSVP: tbenton@mines.edu.

Thursday, April 23th @ 12 PM: Berthoud 241

Speaker: Dr. Rob Farrington, NREL – "Is Our Transportation System Sustainable: Opportunities In the Midst of a Crisis"

Friday, April 24th @ 12 PM-3 PM: Berthoud 241

President Scoggins Address and "Short Films for Deep Thought"
Hear the President's thoughts on sustainability with seven short movies from the Colorado Environmental Film Festival

Friday, April 24th @ 4 PM: Kafadar Commons
EARTHDAY CELEBRATION!

Bring your old cell phones, printer cartridges, and bike tubes to be recycled!
• Live music by Los Cheesies and Mitten Funk
• Free pizza, snacks, and tasty beverages
• Booths with NREL, CRES, the EPA, CFCC, and trivia for prizes!

Email: arattenb@mines.edu
Web: <http://organizations.mines.edu/sustain/>

Band & Choir

Concert

Great Music

Free Admission

Friday, April 24, 2009

7 pm, Bunker Auditorium

Sponsored By Kappa Kappa Psi

Fool's Gold

"Insert tagline here."

Fool's Gold all written by one person
Elusive master of satire revealed

Janeen Neri
Person

To the great astonishment of the entire *Oredigger* staff, it was revealed last Thursday that all the Fool's Gold articles in our own paper have been written by a single person for several years. Though she took various pseudonyms to disguise her identity, *The Oredigger* has finally managed to confirm that her real name is Maude Yewles, and that she lives in a small cottage close to campus, though she is not a Mines student.

Upon being confronted with her long-running deception, Yewles was unashamed. "Th'art a deep examiner," Yewles said, "but ye shall never uncover my secrets, great and terrible though they may be!" A cursory inspection of Yewles' house revealed several stashes of archaic weapons, mysterious illuminated documents, and enor-

mous mounds of hand-thrown lace. Said campus safety chief Alfred Murwood, "[Yewles] fits the profile, almost to the letter, of a Society member."

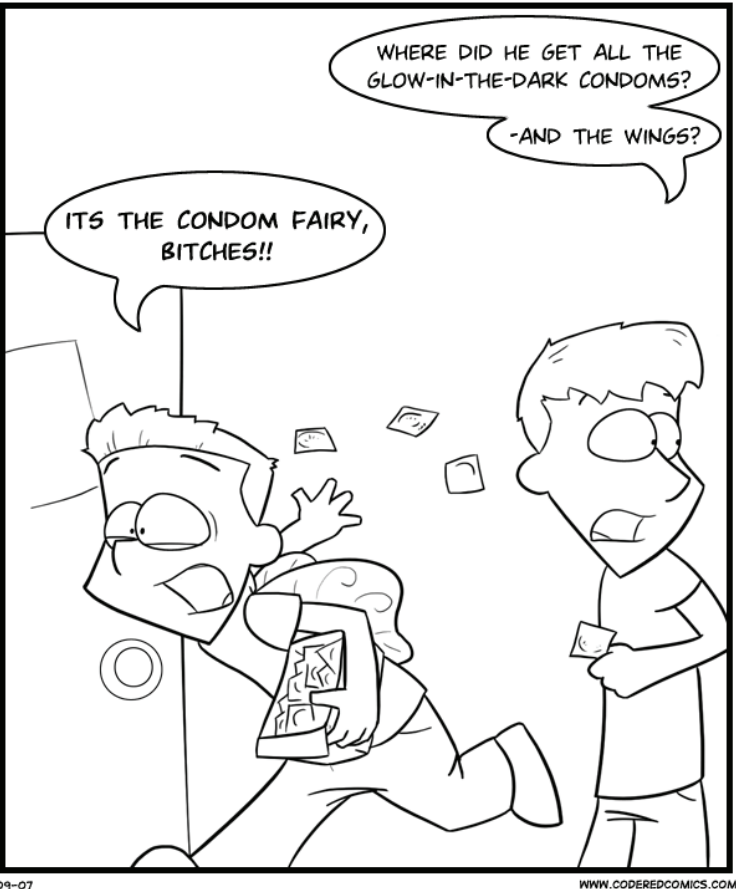
Founded in 1966, the Society is a group of miscreants claiming to have traveled through time to save the present age from something, though the details are unclear. Many accounts seem to center around zombies, though the Society plans to fight the

undead with rapiers remains an open question. Another general goal of the Society seems to be creative anarchy, as is evidenced by the small plaque labeling their Mines presence deep in the bowels of the

Student Activities office. In accordance with these goals, Yewles began slowly taking over the Fool's Gold section of the Mines newspaper under assumed names, hoping to subtly spread Society propaganda throughout the campus. "Fool's Gold," Yewles said, "ah, Fool's Gold. It sparkles like a gem, it does. And like the greedy alchemists they are, those children will snatch it up into their hands, see what makes it glow so! So! Their hearts are won!"

The Oredigger staff would like to offer our sincerest apologies if any of our readers were misled by this scandal. Yewles is known to have used aliases such as "Tim Weiert," "Mike Stone," and – most frequently – "Janeen Neri," so we advise our readers to disregard all Fool's Gold articles written under these names, particularly if reading them is accompanied by a strong urge to cry "barbecue!" at the top of one's lungs.

STANDARD DEVIATION BY KYLE SANDERS



BOOK & Brew

at Arthur Lakes Library



...Get Your Coffee On

- Hormone-free Milk
- Do you work on Campus on Saturdays? You can now get your AFPP (afternoon face plant prevention) at the Book & Brew from noon - 4:00PM
- Also open Sundays 1:00-9:00PM
- PROUDLY SERVING ALLEGRO COFFEE & TEA
- ORGANIC ESPRESSO DRINKS